ABSTRACT

A surgical needle includes an elongated needle body defining a longitudinal axis, and having a main shaft, a needle end adjacent the main shaft, and a needle tip extending from the needle end and having an extreme needle point. The needle end includes a plurality of concave surfaces extending from the needle tip to the main shaft. The needle tip includes a plurality of concave surfaces extending from the needle point to intersect the concave surfaces of the needle end. The concave surfaces of the needle end are obliquely arranged relative to the longitudinal axis at a first angle. The concave surfaces of the needle tip are obliquely arranged relative to the longitudinal axis at a second angle greater than the first angle. The elongated needle body includes cutting edges disposed along lines of intersection of the concave surfaces of the needle end with the concave surfaces of the needle tip. The needle end includes four intersecting concave surfaces and defines a generally diamond-shape in cross-section along an axis transverse to the longitudinal axis. The needle end defines a maximum cross-sectional dimension greater than a corresponding maximum cross-sectional dimension of the main shaft. The needle tip may include four intersecting concave surfaces and define a general diamond shape cross-section.